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ABSTRACT

The aim of this paper is to determine whether the first predicate noun (NP) after the verb in sentences such as "Kelly gave Rose a piano" is the direct object or the indirect object in the surface structure of English. An analysis reveals that the direct object in English is not marked by its position immediately after a (transitive) verb, but by its position after the indirect object of dative verbs and immediately after all other verbs. The indirect object is the first NP after dative verbs. In a hypothetical sentence such as "John sold Kij a car," "Kij" is interpreted as someone, since "sell" requires an indirect object argument that can only be human. Without the node at "kij," it would be impossible to determine that "a car" is the direct object based on lexical and syntactic information. (Author/JB)

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ON THE INDIRECT OBJECT IN ENGLISH

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0. Introduction.

The aim of this paper is to determine whether the first NP after the verb in sentences such as (1) is the direct object or the indirect object in the surface structure of English

(1). Kelly gave Rose a piano.

The conclusion is that the first NP after dative verbs in such expansions as (1) is the indirect object, and that the second NP after dative verbs is the direct object. The argument is based on the Accessibility Hierarchy, which determines that the higher a grammatical relation (function) is in the Hierarchy, the more accessible it is to transformational analysis. The direct object is more accessible than the indirect object.

1. The Problem.

In this paper, I assume that the claim made in Relational Grammar that such initial grammatical relations as subject, direct object and indirect object are not defined in Universal Grammar (UG), but that they are grammatical primes is true (Johnson, 1977). These terms roughly correspond to the logical arguments of the verb.[1] In partial agreement with Keenan (1976), I also assume that there is a universal set of properties which identify these relations, and that all languages incorporate some of these properties into their grammatical systems.

The subject in English, for example, is marked by position, and is subject to verb agreement. A reflexive pronoun cannot occur in the subject position, and the subject is the principle relation upon which certain related sentences are dependent (for example, Subject-to-Subject Raising).

The universal set of properties marking the indirect object in UG is beyond the domain of this paper. One obvious property is coreference with the logical indirect object. Agreement is not a function of the direct or indirect object in English. There are no grammatical words in English which specifically mark either object. The direct object and the indirect object aremarked by position. The position of the direct object is not specifically the first NP after the main verb.

First, note that in the following sentences, which are related to (1), the NP Rose or the corresponding WH-pronoun which may occur in its place cannot occur outside the domain of S:

(2a). *Who did Kelly give a piano?
(2b). *Rose, Kelly gave a piano.
(2c). *It was Rose, who Kelly gave a piano.
(2d). What Kelly gave Rose was a piano.
(2e). *Rose is easy to give a piano.

Culicover and Wexler (1977) have attempted to explain these facts by applying the Freezing Principle. They assume that Sentence (1) is derived, that the node VP is frozen, and that no transformation may analyze a frozen node or any node under its domain. Baker (1977) has pointed out some difficulties with the Freezing Principle, and in DeArmond (Forthcoming), I augment Baker's arguments and claim that the Freezing Principle does not satisfactorily account for the data. I claim that the ungrammaticality of the sentences in (2) is a property of the indirect object in English. In this paper, I intend to show that Rose is the indirect object.

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2. The evidence.

The direct object may be realized as a WH-pronoun, which normally occurs in the complementizer position under the domain of S' (Chomsky 1977). The direct object may occur in Topic and Focus position:

(3a). What did Kelly give to Rose?
(3b). What did Kelly give Rose?
(3c). A piano, Kelly gave to Rose.
(3d). A piano, Kelly gave Rose.
(3e). What Kelly gave to Rose was a piano.
(3f). What Kelly gave Rose was a piano.

It is commonly assumed that first NP after a verb is always the direct object. In Relational Grammar, it is claimed that the second NP is a direct object chomeur. What the second NP is in other frameworks is unclear. Any grammar which blocks the movement of direct objects which precede chomeurs or whatever, but which permits the movement of the latter surely cannot be optimal.

It has been observed by Chomsky (1973:246),[2] Jackendoff (1972:43-46; the Thematic Hierarchy Condition), Keenan (1976:66; the Accessibility Hierarchy), Robinson and Kuno (1972:474-478; the Wh-Crossing Constraint),[3] among others that there exists a hierarchy of grammatical or thematic relations, which appears to be universal. According to the Accessibility Hierarchy, the subject is the most accessible, then the direct object, and then the indirect object. Relational Grammar incorporates this. Kuno and Robinson (1972) have observed that if a simplex sentence has two or more WH-pronouns referring to the primary relations, the hierarchy determines which one occurs in the Comp(lementizer) position. These constraints are formalized by the Subjacency Condition (Chomsky, op.cit.: 246-249):

(4a). Who killed whom? (Subj, Obj)
(4b). *Whom who killed? (Obj, Subj)
(4c). Who read the book to whom? (Subj, Ind Obj)
(4d). *To whom did who read the book? (Ind Obj, Subj)
(4e). What did John buy for whom? (Obj, Ind Obj)
(4f). *Who(m) did John buy what for? (Ind Obj, Obj)
(4g). Who bought what for whom? (Subj, Obj, Ind Obj)
(4h). *For whom did who buy what? (Ind Obj, Subj, Obj)
(4i). What did who buy for whom? (Obj, Subj, Ind Obj)

In the above sentences, each ungrammatical sentence violates the Subjacency Condition.

Now consider the following sentences which contain a dative verb expanded with two complement NP's:

(5a). Who sold Polly what? (Subj, Obj)
(5b). *What did who sell Polly? (Obj, Subj)
(5c). Who sold whom the car? (Subj, Ind Obj)
(5d). *Who(m) did who sell the car? (Ind Obj, Subj)
(5e). What did John sell whom? (Obj, Ind Obj)
(5f). *Who(m) did John sell what? (Ind Obj, Obj)
(5g). ?Who sold whom what? (Subj, Ind Obj, Obj)
(5h). Who sold what to whom? (Subj, Obj, Ind Obj)

The ungrammatical sentences in (5) also violate the Subjacency Condition. Sentence (5g) is questionable, but (5h) is preferrable.[4] The Accessibility Hierarchy probably determines that (5h) is preferable to (5g), where there is a

linear preference. That is, in the case of WH-pronouns, the sequence of the direct object plus oblique object is preferential to the sequence of the indirect object plus the direct object. This point may be trivial.

However, the Accessibility Hierarchy does provide evidence to support the claim that the NP in question is the indirect object. The first NP following the verb ask may be analyzed by a transformation:

(6a). Frank asked Kathy a question.
(6b). Who(m) did Frank ask a question?
(6c). What did Frank ask Bill?
(6d). What did Frank ask whom? (Obj, Ind Obj)
(6e). *Who(m) did Frank ask what? (Ind Obj, Obj)

Since the NP in question can be analyzed by a transformation as in (6c), it must be a constraint based on the Accessibility Hierarchy which determines that (6e) is ungrammatical. The WH-Accessiblity Constraint states that

(7). If two or more WH-pronouns are generated under the domain of S, only the most accessible pronoun may be analyzed by a transformation.

Notice also the examples with take:

(8a). It took Dave 20 minutes to get here.
(8b). How long did it take whom to get here? (Obj, Ind Obj)
(8c). *Who(m) did it take how long to get here? (Ind Obj, Obj)
(8d). Who(m) did it take five minutes to get here?

The first NP complement can be analyzed by a transformation, but the WH-Accessibility Constraint determines the ungrammaticality of (8c). I thus conclude that of the set of dative verbs which are strictly subcategorized for two complement NP's, the first is the indirect object, and the second is the direct object.[5]

It is necessary to differentiate dative verbs and predicate verbs. Certain predicate verbs are transitive and occur with two complement NP's.

(9a). Some people consider Carter a peanut salesman.
(9b). The students elected Clancy president.
(9c). Hector and Cecelia named their child Heloise.

The first complement NP is a direct object, the second a predicate object:

(10a). Who did the students elect what?
(10b). *What did the students elect who?

The analysis of predicate objects is not cited here, but they must be semantically bound to the direct object, or to the subject if the predicate verb is intransitive:

(11a). John struck Mary as a fool.
(11b). *Mary was struck by John as a fool.

Fool refers to John, not Mary. It appears that Mary is an indirect object since (11a) cannot be passivized. Thus, strike in (11) is considered intransitive. The NP complements of intransitive verbs are either indirect or predicate objects or both. Note that transformations may analyze the indirect object of strike as well:

(12a). Who did John strike as a fool?
(12b). Mary, John struck as a fool.
(12c). Who did John strike as what?
(12d). *What did John strike whom as?

Sentences (12c) and (12d) provide evidence that the indirect object is more accessible than the oblique object, which the Accessibility Hierarchy predicts.

In the above sentences, transformations analyze indirect objects, where they are the only complement to the verb. The verb give occurs with two surface complement structures:

(13a). Kelly gave the piano to Rose.
(13b). Kelly gave Rose the piano.

But the verbs ask and strike occur with only one surface complement structure:

(14a). Frank asked Kathy a question.
(14b). *Frank asked a question to Kathy.
(14c). John struck Mary as a fool.
(14d). *John struck to Mary as a fool.
(14e). *John struck as a fool to Mary.

Because few verbs strictly subcategorize two complement NP's whereas NP + PP is more common, it is assumed without further argument here that the complement NP + NP is the marked complement, and NP + PP is unmarked. When both complements to a verb occur, the marked complement is called the lexically marked complement. If the marked complement is the only complement to the verb, the complement is not considered to be lexically marked. It is now possible to propose the following tentative hypothesis:

(15). The (surface) indirect object cannot be analyzed by a transformation when it is a lexically marked complement.

The proposed Indirect Object Accessibility hypothesis blocks WH-Preposing in the ungrammatical sentences discussed above and in the following groups of sentences:

(16a). The book, which John gave to Olga, refutes SPE.
(16b). Olga, who John gave the book to, is Frank's sister.
(16c). The book, which John gave Olga, refutes SPE.
(16d). *Olga, who John gave the book, is Frank's sister.

The direct and oblique objects may occur in topic position, but the indirect object cannot occur there:

(17a). The book, John gave to Olga.
(17b). To Olga, John gave the book.
(17c). The book, John gave Olga.
(17d). *Olga, John gave the book.

Similarly, the indirect object cannot occur in focus position of cleft sentences:

(18a). It was a book, that John gave to Olga.
(18b). It was Olga, that John gave a book to.
(18c). It was a book, that John gave Olga.
(18d). *It was Olga, that John gave a book.

And finally, the indirect object cannot occur as the subject of the verb be whose predicate adjective complement includes the class of adjectives triggering Tough Movement, e.g., easy, tough, and difficult:

(19a). It is easy to give a book to Olga.
(19b). It is easy to give Olga a book.
(19c). A book is easy to give to Olga.
(19d). Olga is easy to give a book to.
(19e). A book is easy to give Olga as a present.
(19f). *Olga is easy to give a book as a present.

The claim in Relational Grammar that III transcends to II in English is, therefore, an incorrect claim, for III can be correlated with the surface indirect object. The direct object does not become a direct object chomeur. The PP to Olga is correlated with the indirect object argument (initial ind. obj.), but in the surface grammar the PP is an oblique object. Indirect Object Accessibility prevents transformations from analyzing indirect objects, but all the transformations which are discussed here analyze to Olga and all other oblique objects. It would be an interesting universal claim that only II could transcend to I; or that the direct object argument could only be correlated with the subject of passive verbs. The passive transformation could analyze only direct objects and not indirect objects. However, the evidence which has been produced above refutes this claim. Furthermore, Johnson (1976: 51) shows some examples for Japanese where III may occur as the subject of passive verbs. However, there is no Dative Movement in Japanese (Kuno 1973: 327-350). Tai Whan Kim (personal communication) assures me that there is no Dative Movement in Japanese. Therefore, III does not transcend to II, but it may transcend directly to I. The claim that III transcends directly to I in English is not in violation to UG.

Johnson (1976: 104-109) lists some arguments that III does transcend to II in English. He first notes that if Dative Movement does not apply to a particular verb, the subject of the passive verb cannot correspond to III:

(20a). We transferred some stock to Bill.
(20b). *We transferred Bill some stock.
(20c). Some stock was transferred to Bill.
(20d). *Bill was transferred some stock.

Johnson states that 'give the "alternate linearlization" hypothesis, the correlation evident ... would be purely accidental. Furthermore, ... the ex-DO cannot be passivized.' I claim in DeArmond (op.cit.), that the subject of the passive can be correlated only with the first NP in the strict subcategorization of the verb. The formalism is given there. This correlation rule will not permit the subject of the sentence to be correlated with a true oblique object[6] nor with the direct object when it follows the indirect object.

Johnson's second argument is based on the claim that Passivization cannot be applied to the underlying direct object of such verbs where Dative Movement (III to II Transcendence) is obligatory, but that it can apply to the derived structure:

(21a). *Max gave a smile to Mary.
(21b). Max gave Mary a smile.
(21c). *A smile was given to Mary.
(21d). Mary was given a smile.

The framework which I propose will not generate (21a) but (21b), and the subject of the passive in (21d) will be correlated with the first NP after the NP in (21c), the indirect object.

Johnson next notes that the two NP's in (22) are direct objects:

(22a). Max presented the medal to Mary.
(22b). Max presented Mary with the medal.

He is correct. Both Max and Mary are direct objects. Both sentences can be passivized. The second complement after the verb is an oblique object. Dative movement does not relate these sentences; these sentences can not be used for evidence for III to II Ascension in Dative Movement. The form claimed to be an indirect object cannot be analyzed by a transformation when lexically marked, but note that the 'derived' direct object in (22) can be:

(23a). What did Max present to Mary?
(23b). Who did Max present with the medal?

Finally, Johnson notes Dative Movement apparently applies to (24b), but it does not apply to (24d):

(24a). John wrote to them (last week).
(24b). John wrote them (last week).
(24c). The bird sang to its mate.
(24d). *The bird sang its mate.
(25a). John wrote a letter to them.
(25b). John wrote them a letter.
(25c). The bird sang to its mate.
(25d). The bird sang its mate a song.

Them in (24b) according to Johnson is a direct object. It has undergone Dative Movement. However, (25b) cannot be passivized:

(26). *They were written by John (last week).

Therefore, them is not a direct object.

3. Conclusion.

In conclusion, the direct object in English is not marked by its position immediately after a (transitive) verb, but by its position after the indirect object of dative verbs and immediately after all other verbs. The indirect object is the first NP after dative verbs. The indirect object may be PRO, as in

(27). John sold PRO a car.

Sentence (27) implies that a car was sold to someone. That is, PRO is interpreted as someone, for sell requires an indirect object argument, which can only be human. Without the PRO NP node, it would be impossible to determine that a car is the direct object based on lexical and syntactic information.

Footnotes

1 The differences that do exist have no affect on this paper.

2 '...the subject is "superior" to any phrase in the predicate in the sense that it is closer to the root of the tree structure.'

3 "Time and wh words ... cannot cross over the wh in the subject position."

4 Chomsky (op.cit.: 244fn) notes that speaker's judgements may vary concerning forms with two WH-pronouns.

5 In DeArmond (op.cit.), I will argue that Dative Movement is not a transformation and that indirect objects are base generated. A verb such as give is strictly subcategorized for 'NP + [to + NP]' or 'NP + NP'.

6 I do not consider the PP in 'John decided on Syntactic Structures' to be an oblique object but a marked direct object, to which Passivization applies.

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